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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,097	07/23/2003	Paul James Taysom	6647-049	8954

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EXAMINER

LY, CHEYNE D

ART UNIT PAPER NUMBER

2168

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/626,097	Applicant(s) TAYSOM, PAUL JAMES	
	Examiner Cheyne D. Ly	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-16, 34-43, 52 and 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-33 and 44-51 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-53 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/23/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8 drawn to a file system, classified in class 707, subclass 100.
 - II. Claims 9-16 drawn to a contract object for use in a computer system, classified in class 707, subclass 100.
 - III. Claims 17-33 and 44-51 drawn to a computer-implemented method and computer readable media for using a contract object, classified in class 707, subclass 103.
 - IV. Claims 34-43, 52, and 53 drawn to a computer-implemented method and computer readable media for using a file system, classified in class 707, subclass 103.
2. Inventions of Groups I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Group I does not required the contract object to part of a many-to-many relationship between a plurality of file objects. The subcombination has separate utility such as an object in a database.
3. The inventions of Groups III and IV are distinct inventions because they are directed to different methods regarding the critical limitations therein. For Group III, the critical feature is a method for using a contract object to represent the relationship between the

Art Unit: 2168

first and second objects. For Group IV, the critical feature is a method for using a file system by defining a relationship between the first and second object, and then, using the second object. The distinct critical features of each Group support the undue search burden if they were examined together.

4. Inventions of groups (III and IV) and (I and II) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product of either group I or II may be utilized in the method of Group III, Group IV, or alternatively, in a method for developing an object oriented relational database.
5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their divergent subject matter, restriction for examination purposes as indicated is proper.
6. During a telephone conversation with Ariel Rogson on January 10, 2005, a provisional election was made with traverse to prosecute the invention of Group III, claims 17-33 and 44-51. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-16, 34-43, 52, and 53 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
7. Claims 17-33 and 44-51 are examined on the merits.

CLAIM REJECTIONS - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Art Unit: 2168

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 17-33 and 44-51 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory algorithm type subject matter.
10. In regard to claims 17-33, the claimed invention is rejected because said claims are directed to a method comprising steps for manipulating objects (data) without any physical alteration step, which is considered to be non-statutory subject matter. The instant specification (page 3, lines 25-26) discloses an “object is a ‘thing’ represented in a computer,” which has been interpreted as a modeling process. “For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory.” (MPEP § 2106 (IV)(B)(2) (b), part ii). Similar to the nonstatutory example above, the instant invention comprises algorithmic steps for manipulating objects without any physical alteration resulted from said analysis or modeling steps.
11. In regard to claims 44-51, the claimed invention is directed to a computer-readable media comprising software for manipulating “objects.” The limitation of “objects” has been interpreted to be nonfunctional descriptive material as supported by the instant specification (page 3, lines 25-26). “[W]hen nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. (MPEP § 2106 (IV)(B)(1).

CLAIM REJECTIONS - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 17-23, 25-31, and 44-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramakrishnan (1998).

14. In regard to claim 17, Ramakrishnan discloses a computer-implemented method for using a contract object, comprising:

- a. Identifying first object (page 359, line 1, and page 360, Figure 14.3);
- b. Identifying second object (page 359, line 1, and page 360, Figure 14.3);
- c. Determining a relationship (page 360, section 14.2.2) between the first object and the second object; and using the contract object to represent the relationship between the first object and the second object (Figure 14.3).

15. In regard to claim 18, the method comprising:

- d. Identifying a first objection includes identifying a plurality of first objects (page 359, lines 4-5, and page 360, Figure 14.3);
- e. Determining a relationship includes determining a plurality of relationships between each of the first objects and the second object (page 360, section 14.2.2); and

Art Unit: 2168

f. Using the contract object includes using a plurality of contract objects to represent the plurality of relationships between the plurality of first objects and the second object (page 360, section 14.2.2, and page 368, Figure 14.10).

16. In regard to claim 19, the method comprising each contract object represents the relationship between exactly one of the plurality of first objects and the second object (page 365, Figure 14.7).

17. In regard to claim to claim 20, the method comprising:

g. Identifying a first object includes identifying a plurality of first objects (page 359, lines 4-5, and page 360, Figure 14.3);

h. Identifying a second object includes identifying a plurality of second objects (page 359, lines 4-5, and page 360, Figure 14.3);

i. Determining a relationship includes determining a plurality of relationships between the plurality of first objects and the plurality of second objects (page 360, section 14.2.2, and page 368, Figure 14.10).

j. Using the contract object includes using a plurality of contract objects to represent the plurality of relationships (page 361, line 3-5) between the plurality of first objects and the plurality of second objects (page 360, section 14.2.2, and page 368, Figure 14.10).

18. In regard to claim 21, the method comprising each contract object represents the relationship between exactly one of the plurality of first objects and exactly one of the plurality of second objects (page 365, Figure 14.7).

19. In regard to claim 22, the method comprising the contract object includes:

- k. Storing a first locator for the first object in the contract object (page 359, 3rd paragraph, and page 363 in its entirety). It is noted that that the instant specification discloses “the objects are all located using identifiers” (page 6, line 32). Therefore, the primary and foreign keys disclosed have been interpreted as “locators.”
 - l. Storing a second locator for the second object in the contract object (page 359, 3rd paragraph, and page 363 in its entirety).
20. In regard to claim 23, the method comprising storing a first locator includes:
- m. assigning a first identifier to the first object (page 359, 3rd paragraph);
 - n. storing the first identifier in the contract object (page 363 in its entirety);
 - o. storing a second locator includes:
 - p. assigning a second identifier to the second object (page 359, 3rd paragraph);
 - q. storing the second identifier in the contract object (page 363 in its entirety).
21. In regard to claim 25, the method further comprising associating a first rule with the contract for a first event that can occur to the first object (pages 26-28, section 2.2.1). It is noted that a query has been interpreted as an event.
22. In regard to claim 26, the method further comprising associating a second rule with the contract object for a second event that can occur to the second object (pages 26-28, section 2.2.1). It is noted that a query has been interpreted as an event.
23. In regard to claim 27, the method comprising:
- r. Identifying a first object includes identifying a file object (page 359, line 1, and page 360, Figure 14.3); and

- s. Identifying a second object includes identifying a collection objection (page 359, line 4).

It is noted that the instant specification does not specifically define the limitation of “file object.” Further, the instant specification describes an “object is a ‘thing’ represent in a computer” (page 3, lines 25-26). Therefore, the citation of objects from a database has been interpreted as a “file object.”

24. In regard to claim 28, the method further comprising:

- t. Storing a third locator for the contract object in the first object (page 359, 3rd paragraph, and page 363 in its entirety); and
- u. Storing a fourth locator for the contractor object in the second object (page 359, 3rd paragraph, and page 363 in its entirety).
- v. It is noted that the disclosure of a primary key and three primary keys has been interpreted to anticipate the limitation of third and fourth locators.

25. In regard to claim 29, the method further comprising assigning a third identifier to the contract object (page 359, 3rd paragraph, and page 363 in its entirety).

26. In regard to claim 30, the method further comprising associating the third identifier of the contract object with the first object (page 359, 3rd paragraph, and page 363 in its entirety); and;

27. Associating the third identifier of the contract with the second object (page 359, 3rd paragraph, and page 363 in its entirety).

28. In regard to claim 31, the method further comprising recording an entry in a transaction log, the entry recording the use of the contract object (page 523, section 18.2.1).

29. In regard to claims 45-50, Ramakrishnan discloses a DBMS is a software (page 1, last two lines and page 6, Other Data Models section) for implementing the above-cited method.

Claim Rejections - 35 USC § 103

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

31. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrihnan (1998) as applied to claims 17-23, 25-31, and 44-50 above, and further in view of Silberschatz (1996).
32. Ramakrihnan describes claim 24 as cited above. However, Ramakrihnan does not describe the limitation of metadata.
33. Silberschatz describes an improvement for the quality of data in current database technology (page 773, column 1, section 5.4). One of ordinary skill in the art at the time of the instant invention would have been motivated by Silberschatz to improve the quality data in the database described by Ramakrihnan by capturing quality-related metadata (page 773, column 1, section 5.4). Therefore, it would have obvious to one of ordinary skill in the are to use the database described by Ramakrihnan with the capturing of metadata as described by Silberschatz.

CONCLUSION

Art Unit: 2168

34. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.
35. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The USPTO's official fax number is 571-272-8300.
36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.
37. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached on (571) 272-4146.

C. Dune Ly / *CDL*
Patent Examiner

[Handwritten Signature]
JEFFREY GAFFIN
SUPERVISOR
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